

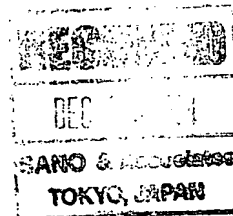
PCT

NOTIFICATION OF TRANSMITTAL  
OF COPIES OF TRANSLATION  
OF THE INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT  
(PCT Rule 72.2)

From the INTERNATIONAL BUREAU

To:

SANO, Hiroshi  
9F, Hatchobori MF Building  
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Chuo-ku, Tokyo 104-0042  
JAPON



Date of mailing (day/month/year) 09 December 2004 (09.12.2004)	
Applicant's or agent's file reference K02-022-PCT	IMPORTANT NOTIFICATION
International application No. PCT/JP2003/002159	International filing date (day/month/year) 26 February 2003 (26.02.2003)
Applicant ELECTRONIC NAVIGATION RESEARCH INSTITUTE AN INDEPENDENT ADMINISTRATIVE INSTITUTION et al	

1. Transmittal of the translation to the applicant.

The International Bureau transmits herewith a copy of the English translation made by the International Bureau of the international preliminary examination report established by the International Preliminary Examining Authority.

2. Transmittal of the copy of the translation to the elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following elected Offices requiring such translation:

EP, KR

The following elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

IL, IN, SG, US

3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report.

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer  Masashi Honda
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Translation

PCT COOPERATION TREATY

PCT/JP2003/002159



# PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference K02-022-PCT	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/JP2003/002159	International filing date (day/month/year) 26 February 2003 (26.02.2003)	Priority date (day/month/year) 25 March 2002 (25.03.2002)
International Patent Classification (IPC) or national classification and IPC G10L 15/08		
Applicant ELECTRONIC NAVIGATION RESEARCH INSTITUTE INSTITUTION AN INDEPENDENT ADMINISTRATIVE		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets, including this cover sheet.
- ☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).
- These annexes consist of a total of                      sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 24 October 2003 (24.10.2003)	Date of completion of this report 13 February 2004 (13.02.2004)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP2003/002159

## I. Basis of the report

## 1. With regard to the elements of the international application:\*

☒ the international application as originally filed☐ the description:

pages \_\_\_\_\_, as originally filed

pages \_\_\_\_\_, filed with the demand

pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

☐ the claims:

pages \_\_\_\_\_, as originally filed

pages \_\_\_\_\_, as amended (together with any statement under Article 19

pages \_\_\_\_\_, filed with the demand

pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

☐ the drawings:

pages \_\_\_\_\_, as originally filed

pages \_\_\_\_\_, filed with the demand

pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

☐ the sequence listing part of the description:

pages \_\_\_\_\_, as originally filed

pages \_\_\_\_\_, filed with the demand

pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

## 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).☐ the language of publication of the international application (under Rule 48.3(b)).☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

## 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.☐ filed together with the international application in computer readable form.☐ furnished subsequently to this Authority in written form.☐ furnished subsequently to this Authority in computer readable form.☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.4. ☐ The amendments have resulted in the cancellation of:☐ the description, pages \_\_\_\_\_☐ the claims, Nos. \_\_\_\_\_☐ the drawings, sheets/fig \_\_\_\_\_5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	1-6	YES
	Claims		NO
Inventive step (IS)	Claims	3, 5-6	YES
	Claims	1-2, 4	NO
Industrial applicability (IA)	Claims	1-6	YES
	Claims		NO

## 2. Citations and explanations

Document 1: SHIOMI, HANEDA, MEGURO, FURUSE, "Hatsuwa Onsei ni yoru Hiroudo Kaiseki Souchi," Information Processing Society of Japan, Dai 64 Kai Zenkoku Taikai Kouen Runbun-shuu (1), 12 March 2002, Demonstration-15, pages 1-253

Document 2: JP 3151489 B2 (Director-General, Ship Research Institute, Ministry of Transport), 26 January 2001, claims 1, 2 and 4, fig. 4, (Family: none)

Document 3: MIYASHITA, WADA, "Fukusuu Washa ni yoru Renzoku Onsei-chuu no Onso wo Target to shita Chaos-sei no Hitokaiseki," Dai 11 Kai Intelligent System Symposium Kouen Ronbun-shuu, 24 September 2001, pages 33-36

## Claims 1-2

Document 1 discloses an analysis device which segments voice data into phonological units and then measures and evaluates the Lyapunov exponents thereof. It would be obvious to a person skilled in the art to add the analog/digital conversion means and the means for outputting the voiced portions, which are disclosed in document 2, to the analysis device that is disclosed in document 1 in order to improve the performance thereof.

## Claim 3

Documents 1-3 define the general state of the art in this technical field, and disclose analysis devices that use Lyapunov exponents. However, documents 1-3 do not disclose or suggest the feature of segmenting only the phoneme strings that correspond to the phoneme string data from the phoneme string database in the aforementioned analysis device.

## Claim 4

Document 3 indicates that a chaos analysis is conducted on the phonemes that are segmented out from continuous speech sounds, and especially on the five vowel sounds that are segmented out. It would be obvious to a person skilled in the art to employ the abovementioned method, wherein predetermined phonemes are segmented out, as an analysis method in the analysis device that is disclosed in document 1.

## Claim 5

Documents 1-3 do not disclose or suggest the feature of selecting and setting the phonemes or phoneme strings arbitrarily in the abovementioned analysis device.

## Claim 6

Documents 1-3 do not disclose or suggest the feature of applying the amount of offset when segmenting in the abovementioned analysis device.